Natural Products

ChemFaces

Orobol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Orobol

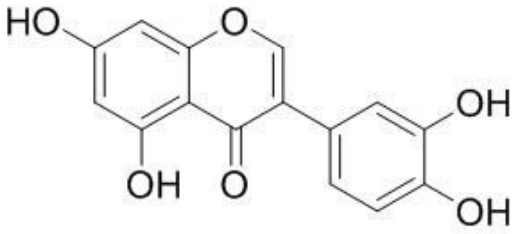
Catalog No.: CFN98737

Cas No.: 480-23-9

Purity: > 95%

M.F: $C_{15}H_{10}O_6$

M.W: 286.24



Physical Description: Yellow powder

Synonyms:3',4',5,7-tetrahydroxy-isoflavon;5,7-Dihydroxy-3-(3,4-dihydroxyphenyl)-4h-1-benzopyran-4-on.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Wisteria sinensis.*

[Biological Activity or Inhibitors]

Isoflavonoid compounds, orobol, psi-tectorigenin and genistein have been implicated as inhibitors of tyrosine-specific protein kinase and phosphatidylinositol turnover.[1]

Orobol has sensitization effect, it can produce produced cisplatin (DDP) sensitivity in human ovarian carcinoma cells by inducing apoptosis through the MT-dependent signaling pathway.[2]

Orobol and platelet derived growth factor (PDGF) regulate paclitaxel (PX) sensitivity by reciprocally altering the proportion of tubulin isotype expression and PX-induced apoptotic signaling. [3]

Orobol exhibits antiviral effects against some animal viruses, addition of the compound after virus entry inhibits the appearance of late viral protein synthesis in Vesicular Stomatitis Virus, influenza, or vaccinia virus-infected cells, but has no effect on poliovirus protein synthesis;concentrations of the compound above 10–50 mg $\cdot L^{-1}$ are sufficient to decrease the synthesis of VSV proteins when added early during infection, but have no effect on viral translation if added later, indicating that orobol does not block VSV translation directly.[4]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method][5]

Mobile phase: Dichloromethane- Methanol ,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 262 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Tomonaga T, Mine T, Kojima I, *et al. Biochem. Bioph. Res. Co., 1992, 182(2):894-9.*

[2] Isonishi S, Saitou M, Yasuda M, *et al. Gynecol. Oncol., 2003, 90(2):413-20.*

[3] Isonishi S, Saitou M, Saitou M, *et al. Oncol. Rep., 2007, 18(1):195-201.*

[4] Almela M J, Irurzun A, Carrasco L. *Antivir. Chem. Chemoth., 1994, 5(2):99-104.*

[5] Ma W W, Liu H, Meng S T, *et al. Chinese Traditional & Herbal Drugs, 2014, 45(17): 2453-6.*

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